



information added to the information signals, as the minute level signal.

4. An information signal

recording/reproducing system according to claim 1, wherein the recording device section comprises an enciphering means for enciphering the medium-related information from the recording-side medium-related information reading means,

the information adding means in the recording device section is a means for adding the medium-related information enciphered by means of the enciphering means to the information signals to be recorded, and

the detecting means in the reproducing device section is a means for extracting and decoding the medium-related information enciphered and added to the information signals, so as to pick up the medium-related information added to the information signals.

5. An information signal

recording/reproducing system according to claim 1, wherein the reproducing device section comprises an information signal erasing means for erasing the information signals recorded on the recording medium to be reproduced when the medium-related information from the reproducing-side medium-related information reading means is not consistent with the medium-related

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information from the detecting means.

6. An information signal

recording/reproducing system according to claim 1, wherein the reproducing device section comprises an informing means for informing that the information signals are not reproduced when the determined result from the determining means indicates that the medium-related information from the reproducing-side medium-related information reading means is not consistent with the medium-related information from the detecting means.

7. An information signal

recording/reproducing system, using a recording medium having thereon an area which is different from an area for recording information signals and which medium-related information, which is information on the recording medium, is beforehand recorded in, or having a section accompanying the recording medium in which the medium-related information is beforehand recorded; and comprising a recording device section for recording the information signals on the recording medium and a reproducing device section for reproducing the information signals recorded on the recording medium;

the recording device section comprising:

recording-side medium-related information



information read by means of the reproducing-side medium-related information reading means; and

reproduction controlling means for carrying out control for reproducing the information signals only when the additional information added to the information signals is detected by means of the additional information detecting means.

8. An information signal recording/reproducing system according to claim 7, wherein the recording-side additional information generating means in the recording device section is a means for generating the additional information by using the medium-related information from the recording-side medium-related information reading means as an enciphering key to carry out enciphering, and

the additional information detecting means in the reproducing device section is a means for detecting the additional information added to the information signals from the information signal reading means by using the medium-related information from the reproducing-side medium-related information reading means as a decoding key to carrying out decoding.

9. An information signal recording/reproducing system according to claim 7,

wherein the reproducing device section comprises an information signal erasing means for erasing the information signals recorded on the recording medium to be reproduced when the additional information cannot be detected from the information signals by means of the additional information detecting means.

10. An information signal recording/reproducing system according to claim 7, wherein the reproducing device section comprises an informing means for informing that the information signals are not reproduced when the additional information cannot be detected from the information signals by means of the additional information detecting means.

11. An information signal recording device for recording information signals on a recording medium having thereon an area which is different from an area for recording the information signals and which medium-related information, which is information on the recording medium, is beforehand recorded in, or having a section accompanying the recording medium in which the medium-related information is beforehand recorded; comprising:

medium-related information reading means for reading the medium-related information from the

recording medium, or from the section accompanying the recording medium;

information adding means for adding the medium-related information read by means of the medium-related information reading means to the information signals; and

recording means for recording the information signals to which the medium-related information is added by means of the information adding means on the recording medium.

12. An information signal recording device according to claim 11, which comprises a spreading means for spectrum-spreading the medium-related information from the medium-related information reading means,

the adding means being a means for superimposing the medium-related information spectrum-spread by means of the spreading means on the information signals to be recorded.

13. An information signal recording device according to claim 11, which comprises a signal level converting means for converting the medium-related information from the medium-related information reading means into a minute level signal,

the information adding means being a means for

adding the medium-related information converted into the minute level signal by means of the signal level converting means to the information signals to be recorded.

14. An information signal recording device according to claim 11, which comprises an enciphering means for enciphering the medium-related information from the medium-related information reading means,

the information adding means being a means for adding the medium-related information enciphered by means of the enciphering means to the information signals to be recorded.

15. An information signal recording device for recording information signals on a recording medium having thereon an area which is different from an area for recording the information signals and which medium-related information, which is information on the recording medium, is beforehand recorded in, or having a section accompanying the recording medium in which the medium-related information is beforehand recorded; comprising:

medium-related information reading means for reading the medium-related information from the recording medium, or from the section accompanying the recording medium;

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additional information generating means for generating additional information on the basis of the medium-related information from the medium-related information reading means;

information adding means for adding the additional information generated by means of the additional information generating means to the information signals; and

recording means for recording the information signals to which the additional information is added by means of the information adding means on the recording medium.

16. An information signal recording device according to claim 15, wherein the additional information generating means is a means for generating the additional information by using the medium-related information from the medium-related information reading means as an enciphering key to carry out enciphering.

17. An information signal reproducing device for reproducing information signals which medium-related information, which is information on a recording medium, is added to and which are recorded on the recording medium having thereon an area which is different from an area for recording the information



signals and which the medium-related information is beforehand recorded in, or having a section accompanying the recording medium in which the medium-related information is beforehand recorded; comprising:

medium-related information reading means for reading the medium-related information from the recording medium, or from the section accompanying the recording medium;

information signal reading means for reading the information signals from the recording medium;

detecting means for detecting the medium-related information added to the information signals from the information signal reading means;

determining means for determining whether or not the medium-related information from the reproducing-side medium-related information reading means is consistent with the medium-related information from the detecting means; and

reproduction controlling means for carrying out control for reproducing the information signals only when the determined result from the determining means indicates that the medium-related information from the medium-related information reading means is consistent with the medium-related information from the detecting

means.

18. An information signal reproducing device according to claim 17, wherein the medium-related information added to the information signals is spectrum-spread and superimposed on the information signals, and

the detecting means is a means for picking up the medium-related information spectrum-spread and superimposed on the information signals by inverse spectrum-spreading.

19. An information signal reproducing device according to claim 17, wherein the medium-related information added to the information signals is added as a minute level signal, and

the detecting means is a means for picking up the medium-related information added to the information signals, as the minute signals.

20. An information signal reproducing device according to claim 17, wherein the additional information added to the information signals is enciphered so as to be added to the information signals, and

the detecting means is a means for picking up the medium-related information added to the information signals by extracting and decoding the

medium-related information enciphered and added to the information signals.

21. An information signal reproducing device according to claim 17, which comprises an information signal erasing means for erasing the information signals recorded on the recording medium to be reproduced when the determined result from the determining means indicates that the medium-related information from the medium-related information reading means is not consistent with the medium-related information from the detecting means.

22. An information signal reproducing device according to claim 17, which comprises an informing means for informing that the information signals are not reproduced when the determined result from the determining means indicates that the medium-related information from the medium-related information reading means is not consistent with the medium-related information from the detecting means.

23. An information signal reproducing device for reproducing information signals which medium-related information, which is information on a recording medium, is added to and which are recorded on the recording medium having thereon an area which is different from an area for recording the information

Figure 1 consists of 12 subplots (a-l) showing the time course of various physiological variables during a 10-minute period. The variables are: (a) HR (b/min), (b) SV (l/min), (c) CO (l/min), (d) MAP (mmHg), (e) PVR (mmHg), (f) SVR (mmHg), (g) PPA (mmHg), (h) PVP (mmHg), (i) PVP/PPA, (j) PVP/PPA, (k) PVP/PPA, and (l) PVP/PPA. Each graph shows a baseline period followed by a 10-minute intervention period. The y-axis for all graphs ranges from 0 to 100. The x-axis for all graphs ranges from 0 to 10 minutes. The graphs show that HR, SV, CO, MAP, PVR, SVR, PPA, and PVP all increase during the intervention period, while PVP/PPA remains relatively stable.

additional information detecting means for detecting the additional information added to the information signals on the basis of the medium-related information read by means of the reproducing-side medium-related information reading means; and

reproduction controlling means for carrying out control for reproducing the information signals only when the additional information added to the information signals is detected by means of the additional information detecting means.

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recording process to carry out enciphering is added,  
and

the additional information detecting means is  
a means for detecting the additional information added  
to the information signals from the information signal  
reading means by using the medium-related information  
from the medium-related information reading means as  
a decoding key to carry out decoding.

25. An information signal reproducing device  
according to claim 23, which comprises an information  
signal erasing means for erasing the information  
signals recorded on the recording medium to be  
reproduced when the additional information cannot be  
detected from the information signals by means of the  
additional information detecting means.

26. An information signal reproducing device  
according to claim 23, which comprises an informing  
means for informing that the information signals are  
not reproduced when the additional information cannot  
be detected from the information signals by means of  
the additional information detecting means.

27. An information signal  
recording/reproducing process, using a recording  
medium having thereon an area which is different from  
an area for recording information signals and which

medium-related information, which is information on the recording medium, is beforehand recorded in, or having a section accompanying the recording medium in which the medium-related information is beforehand recorded; and comprising a recording device section for recording the information signals on the recording medium and a reproducing device section for reproducing the information signals recorded on the recording medium;

comprising, when the information signals are recorded on the recording medium,

the recording-side medium-related information reading step of reading the medium-related information from the recording medium, or from the section accompanying the recording medium,

the information adding step of adding the read medium-related information to the information signals, and

the recording step of recording the information signals to which the medium-related information is added on the recording medium; and

comprising, when the information signals recorded on the recording medium are reproduced,

the reproducing-side medium-related information reading step of reading medium-related

information from the recording medium, or from the section accompanying the recording medium,

the information signal reading step of reading the information signals from the recording medium,

the detecting step of detecting the medium-related information added to the information signals from the information signal reading step,

the determining step of determining whether or not the medium-related information from the reproducing-side medium-related information reading step is consistent with the medium-related information from the detecting step, and

the reproduction step of reproducing the information signals only when the medium-related information from the reproducing-side medium-related information reading step is consistent with the medium-related information from the detecting step.

28. An information signal recording/reproducing process according to claim 27, which comprises, when the information signals are recorded on the recording medium, the spreading step of spectrum-spreading the medium-related information read in the recording-side medium-related information reading step,

the medium-related information spectrum-spread

in the spreading step being superimposed on the information signals to be recorded, in the information adding step, and

wherein when the information signals recorded on the recording medium are reproduced, the medium-related information spectrum-spread and superimposed on the information signals is picked up by inverse spectrum-spreading, in the detecting step.

29. An information signal recording/reproducing process according to claim 27, which comprises, when the information signals are recorded on the recording medium, the signal level converting step of converting the medium-related information read in the recording-side medium-related information reading step into a minute level signal,

the medium-related information converted into the minute level signal in the signal level converting step being added to the information signals to be recorded, in the information adding step, and

wherein, when the information signals recorded on the recording medium are reproduced, the medium-related information added to the information signals as the minute level signal is picked up, in the detecting step.

30. An information signal



recording/reproducing process according to claim 27, which comprises, when the information signals are recorded on the recording medium, the enciphering step of enciphering the medium-related information from the medium-related information reading step in the recording process,

the medium-related information enciphered in the enciphering step being added to the information signals to be recorded, in the information adding step, and

wherein when the information signals recorded on the recording medium are reproduced, the medium-related information enciphered and added to the information signals is extracted and decoded so as to pick up the medium-related information added to the information signals, in the detecting step.

31. An information signal recording/reproducing process according to claim 27, which comprises the information signal erasing step for erasing the information signals recorded on the recording medium to be reproduced when the determined result from the determining step indicates that the medium-related information from the reproducing-side medium-related information reading step is not consistent with the medium-related information from



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the additional information generating step of generating additional information on the basis of the medium-related information from the recording-medium-related information reading step,

the information adding step of adding the additional information generated in the additional information generating step to the information signals, and

comprises the recording step of recording the medium-related information from the information signals to which the additional information is added in the information adding step on the recording medium; and

the reproducing-side medium-related information reading step of reading the recording medium, or from the section accompanying the recording medium,

the information signal reading step of reading the information signals from the recording medium,

the additional information detecting step of detecting the additional information added to the information signals on the basis of the medium-related information read in the reproducing-side medium-related information reading step, and

the reproduction controlling step of carrying

out control for reproducing the information signals only when the additional information added to the information signals is detected in the additional information detecting step.

34. An information signal recording/reproducing process according to claim 33, wherein when the information signals are recorded on the recording medium, in the recording-side additional information generating step the additional information is generated by using the medium-related information from the recording-side medium-related information reading step as an enciphering key to carry out enciphering, and

when the information signals recorded on the recording medium are reproduced, in the additional information detecting step the additional information added to the information signals from the information signal reading step is detected by using the medium-related information from the reproducing-side medium-related information reading step as a decoding key to carry out decoding.

35. An information signal recording/reproducing process according to claim 33, which comprises the information signal erasing step of erasing the information signals recorded on the

recording medium to be reproduced when the additional information cannot be detected from the information signals in the additional information detecting step.

36. An information signal recording/reproducing process according to claim 33, which comprises the informing step of informing that the information signals are not reproduced when the additional information cannot be detected from the information signals by means of the additional information detecting step.

37. An information signal recording/reproducing system comprising a recording device section for recording information signals on a recording medium, and a reproducing device section for reproducing the information signals recorded on the recording medium;

the recording device section comprising:  
a recording-side device-related information obtaining means for obtaining a device-related information, which is information related to a recording device for recording the information signals,

information adding means for adding the device-related information obtained by means of the recording-side device-related information obtaining means to the information signals;

recording means for recording the information signals to which the device-related information is added by means of the information adding means on the recording medium; and

the reproducing device section comprising:

reproducing-side device-related information  
obtaining means for obtaining a device-related  
information, which is information related to a  
reproducing device for reproducing the information  
signals;

information signal reading means for reading  
the information signals from the recording medium;

detecting means for detecting the device-related information added to the information signals from the information signal reading means;

determining means for determining whether or not the device-related information from the reproducing-side device-related information obtaining means is consistent with the device-related information from the detecting means; and

reproducing control means for carrying out control for reproduction of the information signals only when the device-related information from the reproducing-side device-related information obtaining means is consistent with the device-related

information from the detecting means.

38. An information signal recording/reproducing system according to claim 37, wherein the recording device section comprises a recording-side auxiliary recording medium setting means into which an auxiliary recording medium is set,

the recording-side medium-related information obtaining means is a means for obtaining the device-related information from the auxiliary recording medium set into the recording-side auxiliary recording medium setting means, and

the reproducing device section comprises a reproducing-side auxiliary recording medium setting means into which the auxiliary recording medium is set,

the reproducing-side medium-related information obtaining means is a means for obtaining the device-related information from the auxiliary recording medium set into the reproducing-side auxiliary recording medium setting means.

39. An information signal recording/reproducing system according to claim 37, wherein the recording device section comprises a spreading means for spectrum-spreading the device-related information from the recording-side device-related information obtaining means,

the information adding means in the recording device section is a means for superimposing the device-related information spectrum-spread by means of the spreading means on the information signals to be recorded, and

the detecting means in the reproducing device section is a means for picking up the device-related information spectrum-spread and superimposed on the information signals by inverse spectrum-spreading.

40. An information signal recording/reproducing system according to claim 37, wherein the recording device section comprises a signal level converting means for converting the device-related information from the recording-side device-related information obtaining means into a minute level signal,

the information adding means is a means for adding the device-related information converted into the minute level signal by means of the signal level converting means to the information signals to be recorded, and

the detecting means in the reproducing device section is a means for picking up device-related information added to the information signals, as the minute level signal.



41. An information signal recording/reproducing system according to claim 37, wherein the recording device section comprises an enciphering means for enciphering the device-related information from the recording-side device-related information obtaining means,

the information adding means in the recording device section is a means for adding the device-related information enciphered by means of the enciphering means to the information signals to be recorded, and

the detecting means in the reproducing device section is a means for extracting and decoding the device-related information enciphered and added to the information signals, so as to pick up the device-related information added to the information signals.

42. An information signal recording/reproducing system according to claim 37, wherein the reproducing device section comprises an information signal erasing means for erasing the information signals recorded on the recording medium to be reproduced when the determined result from the determining means indicates that the device-related information from the reproducing-side device-related information obtaining means is not consistent with the device-related information from the detecting means.